California MEDICINE
OWNED AND PUBLISHED BY THE CALIFORNIA MEDICAL ASSOCIATION
450 SUTTER, SAN FRANCISCO 8, CALIFORNIA • TELEPHONE DOUGLAS 2-0062
Address editorial communications to Dwight L. Wilbur, M.D., and business communications to John Hunton

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Subscription prices, $6 ($7 for foreign countries); single copies 60 cents.

Volumes begin with the first of January and the first of July. Subscriptions may commence at any time.

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"Entered as second class matter at the post office at San Francisco, under the Act of March 3, 1879." Acceptance for mailing at special rate of postage provided for in Section 1103. Act of October 3, 1917, authorized August 10, 1918.

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Heart Disease Used as Anxiety Defense

For some persons to face life, they may need to believe they have heart disease even when it has been proved they do not.

Their conviction may represent a necessary defense against "potentially overwhelming anxiety," three physicians stated in the November 22 issue of the *Journal of the American Medical Association.*

They made a six-year study of 52 persons with chest pain. Of these 27 were classified as having a "cardiac neurosis," in which they showed no evidence of heart disease but were convinced of its presence. Twenty-five had angina pectoris.

The 27 patients who believed they had heart disease were "all intensely anxious people whose neurotic behavior was readily apparent." They tended to dramatize their symptoms and often referred to their "heart pain." Some of them were totally incapacitated, while others were able to lead an active and constructive life in spite of their symptoms. They showed "a high degree of secondary gain" from their ailment, the physicians said. In some, the pain represented a means for setting limits to their activities and freed them temporarily from intense pressures or responsibilities. It seemed to act as a means of getting attention and of controlling family members. In others, the pain represented an acceptable "excuse" for failing to attain certain objectives. For some, there was a definite monetary compensation from their pain.

If their compensation or need for invalidism was questioned, they became angry and defensive, the physicians noted. "Once an individual has allowed himself to regress to this stage of dependency," the physicians continued, "it is difficult or impossible for him to relinquish this way of life even though the diagnosis of heart disease has been disproved.

"Their eventual incapacity equals the most serious types of heart disease. Sudden withdrawal of long-continued compensation may be disastrous. It seems highly probable that the conviction they have heart disease may be essential for the functioning of some patients in life at certain times."

Under these circumstances it is often advisable to allow the patient to maintain his cardiac neurosis, they said. However, physicians should do all they can in helping such patients overcome their fears by understanding the underlying sources of the patient's anxiety and his conflicts.

Other points the study showed were:

—The average number of physicians consulted by each patient in the cardiac neurosis group was 4.7 compared to only 1.5 for each patient with angina pectoris. It was not unusual for the neurotic patients to be consulting a number of physicians simultaneously.

—The onset of chest pain in every patient with cardiac neurosis was preceded by increasing emo-

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Food Supplement Said to Be Unnecessary During Pregnancy

Expectant mothers generally do not have to resort to food supplements to obtain all the vitamins, minerals, and other nutrients needed during pregnancy. These nutritional essentials are readily available from normal food sources, three Vanderbilt University researchers stated.

Their conclusions are based on a study of 2,388 pregnant women and are reported in the December 20 issue of the *Journal of the American Medical Association.* As a result of their study, William J. McGanity, M.D., Edwin B. Bridgforth, A.B., and William J. Darby, M.D., all of Nashville, Tennessee, questioned the wide use of food supplements in the diets of expectant mothers. They said that their study indicates no significant difference in the incidence of maternal or fetal abnormalities in women receiving supplements and those on a standard diet. The only exception was among women with iron deficiency anemia. These women generally need supplementary iron. They concluded that if a physician feels his patient is not obtaining the necessary amounts of minerals or vitamins he should recommend dietary corrections before resorting to supplements. Such supplementation, the authors said, should be used only to bring the patient up to accepted nutritional levels.

They further noted that their study does not provide evidence to indicate that dietary intakes greater than the allowances of the Food and Nutrition Board of the National Research Council, Washington, will bestow protective benefits during pregnancy. "A diet that will provide the recommended levels of nutrients is readily attainable from food sources in all sections of the country without the need of supplementation," they concluded.

Heart Disease Used as Anxiety Defense

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tional tension and was often associated with deterioration in their life situations.

—Some of the patients with angina pectoris had cardiac neuroses as severe as the members of the other group. These patients were very anxious, which increased the frequency and severity of the anginal attack. They became "overtly terrified and behaved as though any physical or emotional strain was too great for them. They seemed to have 'wrapped themselves in cotton wool'." However, most overcame their fears and learned to live constructively within their newly imposed limits.

Authors of the article are Dr. William N. Chambers, Mary Hitchcock Hospital, Hanover, New Hampshire; Dr. Joseph L. Grant, Veterans Administration Hospital, White River Junction, Vermont, and Dr. Kerr L. White, University of North Carolina, Chapel Hill, North Carolina.

Nose Surgery in Childhood Should Be Kept to Minimum

Nose surgery before a child is 14 should be kept to an absolute minimum, according to two Eastern otolaryngologists.

Surgery to correct nasal deviations should be delayed whenever possible until the nose has reached its full growth between the ages of 14 and 17, the physicians said in the December issue of *Archives of Otolaryngology*, published by the American Medical Association.

Surgery in the early years may interfere with the nose's growth and result in further deviation. Surgery should be performed only in situations where the deviation interferes with the passage of air.

The physicians also reported a new operation for repairing the bone that divides the nose into two chambers. It is better, they said, to make several small vertical incisions near any buckled area of cartilage than to make one long incision. This is recommended so that only a minimum of cartilage will be removed and that only a minimum of interference with the nutrition of the remaining cartilage will occur.

The authors are Dr. Joseph G. Gilbert, Roslyn Heights, New York, and Dr. Samuel Segal Jr., Springfield, Massachusetts.

People are far more health-conscious than they used to be. Thirty years ago, for example, a much lower proportion of the population consulted a doctor during a given year, and the average number of visits per person was only half what it is today.—*Progress in Health Services, Vol. VII, No. 8.*

Hereditary Factor Implicated In Multiple Sclerosis

A hereditary factor was termed "a distinct possibility" as a cause of multiple sclerosis after a new study of twins suffering from the disease.

Heredity has long been considered as possibly playing a role in multiple sclerosis, a disease of the central nervous system.

A preliminary report of the study—one of the first conducted among twins and their relatives—was made by two Chicago scientists in the December issue of *Archives of Neurology and Psychiatry*, published by the American Medical Association.

The study involved 63 sets of twins, of whom 54 sets were completely studied and nine of whom are still being studied. They were selected through the National Multiple Sclerosis Society who advertised for twins in whom at least one had multiple sclerosis.

The study showed that among identical twins, there were two sets in whom both members definitely had the disease; five sets in whom it appeared that both had the disease, and 22 sets in whom only one twin had the disease.

Among the non-identical twins, there was one set in whom both twins had the disease; three in whom it appeared that both had the disease, and 21 in whom only one twin had it.

Using "the most rigid diagnostic standards," both members of only three sets definitely had multiple sclerosis; however, with less rigid standards, 11 sets could be considered as having "concordant" disease, the authors said. They noted that it is sometimes difficult to tell definitely if a nervous disorder is multiple sclerosis, and that there are cases in which the disease process "burns out" before it presents the standard symptoms.

It is possible that more concordant cases may appear in future years, since there is great variability in the age of onset of disease. In addition, the partial symptoms presented by many of the twins "will probably flower into the full clinical picture in many of them, while others now quite free may come to show the full-blown disease," the authors said.

It seems most unlikely, they continued, that multiple sclerosis is of purely genetic origin. "There must be more than one cause if genetic factors play any role at all. Thus it is possible that a genetic factor may require the addition of an environmental agent before the disease can develop. Concordance in identical twins may thus fail to develop because one of the pair has not yet encountered the unknown environmental factor necessary to produce the disease."

Studies of more than one thousand relatives of these twins showed a prevalence of the disease ranging from 20 to 33 times that found in the general

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Hereditary Factor Implicated In Multiple Sclerosis

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population. This finding—similar to those of other studies—"strongly suggests a genetic factor as one agent in the causation of multiple sclerosis," and makes the "equivocal genetic evidence" disclosed in the study of twins less equivocal and more favorable to the genetic hypothesis, they said.

"Follow-up studies of these twins and their relatives, planned for five and ten years from now, will either confirm our predictions or modify our conclusions to more final ones," the authors concluded.

The authors are Roland P. Mackay, M.D., and Ntinos C. Myrianthopoulos, Ph.D., both of the University of Illinois College of Medicine.

PHS reports that poliomyelitis cases for 1958 (up to December 13) total 5,862 compared with 5,832 in 1957. Paralytic cases for 1958 are about 40 per cent above last year, 3,003 compared with 2,125. All totals still are running well below 1956.

—A.M.A. Washington Letter

Thick Peels May Reduce Potato Caloric Value

Thin potato peelings have always been the sign —and the aim—of an economical housewife.

But there may be at least one situation when a thick peel is desirable, according to Dr. William W. Bolton, associate editor of *Today's Health,* an American Medical Association publication.

In answer to an overweight, potato-loving reader asking how potatoes can be prepared so they will be less weight-building, Dr. Bolton said the starch that provides most of a potato's caloric value is near the skin. Thus he recommended that the skin be cut away in a thick peel. He added, however, "We cannot give you any assurance that caloric intake will be greatly reduced, but at least it would be lowered some. . . ." He also recommended that cream sauces be avoided and that butter and margarine be kept to a minimum. And baked potatoes are "surely off limits."

Dr. Bolton noted that potatoes are not just starch. An average-sized potato provides 85 calories and has a water content of 77.8 per cent. Vitamins A and C are present in appreciable amounts as are calcium and phosphorus. There are trace amounts of iron and vitamin B fractions.

His comments appeared in the December issue of *Today's Health.*

Human Research Ethics

Medical experiments in man, while essential for man's welfare, are not properly recognized by the law as a legitimate part of the physician's activities.

This paradox was analyzed by a well-known researcher, Dr. Henry K. Beecher, Massachusetts General Hospital, Boston, in the January 31 issue of the *Journal of the American Medical Association.*

Medical experimentation in man, when carefully conceived and soundly conducted, is everywhere recognized as being properly within the ethical and moral concepts of our times; but the law remains silent concerning it, he said.

No specific legal precedents have been set down to protect the subject or the investigator. In fact, the law now implies that the physician experiments at his own peril; yet research is absolutely necessary.

Dr. Beecher urged a redefinition of human experimentation so that it may receive legal recognition as "a separate endeavor affected with a public interest as significant as medical practice itself."

Experimentation in man for scientific purposes is as old as recorded history. It is practiced every day by the physician as he tries a new drug on a sick patient. It is when the scope of the experiment is broadened with the idea of benefiting many patients instead of just one that the difficulties begin.

In most cases, the problems of human experimentation do not lend themselves to a series of rigid rules, Dr. Beecher said. However, there have always been codes, ranging from the rather simple rules of the ancient Hippocratic oath, taken by all physicians, to the 10-point code developed during the Nuremberg war crimes trials after World War II.

Dr. Beecher quoted Claude Bernard, the 19th century French physiologist who gave new orientation to medicine by portraying the human body as a single functional entity, as saying that in the field of experimentation "Christian morals forbid only one thing, doing ill to one's neighbor." This may be all that is necessary in terms of principle, Dr. Beecher said, but there is a need for the practical spelling out of the principle.

He then outlined some of the specific principles that must be followed in human research. His comments were based on a number of statements made by governmental, scientific, and religious bodies.

When possible, investigation begins in animals but finally must be applied to man. There are certain diseases, notably mental illness, that can be studied only in man, Dr. Beecher said. The voluntary consent of the human subject is absolutely necessary. If there are dangers involved, the person must be informed.

Dr. Beecher recommends the use of a volunteer corps, rather than civil prisoners or medical students as subjects. (War prisoners absolutely cannot

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Human Research Ethics

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be used as subjects.) Already in the United States there is the beginning of a volunteer corps in the conscientious objectors to military service and in the Mennonite group of young adults who volunteer as subjects for scientific studies.

The experiment should be such as to yield fruitful results for the good of humanity that are unobtainable by any other method.

Among the other principles that must be followed are: the experiment must be conducted to avoid all unnecessary mental and physical suffering by the subject; the degree of risk should never exceed that determined by the humanitarian importance of the problem to be solved; proper protection must be taken to prevent even the remotest possibilities of injury, disability or death to the subject; the experiments must be conducted by scientifically qualified persons.

The subject must have the right to end the experiment when he feels he can no longer undergo it, and the scientist must stop the experiment whenever it appears that the experiment may cause injury, death or disability.

BOOKS RECEIVED

Books received by CALIFORNIA MEDICINE *are acknowledged in this column. Selections will be made for more extensive review in the interests of readers as space permits.*

BONE TUMORS—Second Edition—Louis Lichtenstein, M.D., Chief Pathologist, VA Hospital, Los Angeles. The C. V. Mosby Company, St. Louis, 1959. 402 pages, 220 illustrations, $12.00.

CIBA FOUNDATION SYMPOSIUM—Amino Acids and Peptides with Antimetabolic Activity—G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Little, Brown and Company, Boston, 1959. 286 pages, $8.75.

EMERGENCY SURGERY—Seventh Edition—Hamilton Bailey, F.R.C.S. (Eng.), F.A.C.S., F.R.S.E., Emeritus Surgeon, Royal Northern Hospital, London; Consulting Surgeon, the Italian Hospital; General Surgeon, Metropolitan Ear, Nose, and Throat Hospital; Vice-President of the International College of Surgeons; formerly Hunterian Professor, Royal College of Surgeons of England, and External Examiner in Surgery, University of Bristol. The Williams and Wilkins Company, Baltimore, 1958. 1197 pages, $32.50.

FIRST AFRO-ASIAN CONGRESS OF OPHTHALMOLOGY, 1-5 March, 1958, Cairo, United Arab Republic—ACTA. Incorporating Bull. Ophth. Soc. Egypt, Vol. 51, 1958. 734 pages.

FRACTURE SURGERY—A Textbook of Common Fractures—Henry Milch, M.D., Emeritus Attending and Consulting Orthopedic Surgeon, Hospital for Joint Diseases, New York; and Robert Austin Milch, M.D., Assistant Resident Surgeon, Peter Bent Brigham Hospital, Boston. With a chapter on anesthesia by Herbert D. Dubovsky, M.D., director of Anesthesiology, Easton Hospital, Easton, Pennsylvania. A Hoeber-Harper Book, Medical Book Department of Harper & Brothers, 49 East Thirty-Third Street, New York 16, N. Y., 1959. 470 pages, with 671 illustrations, $17.50.

GYNECOLOGIC RADIOGRAPHY—Jean Dalsace, M.D., Chief of Sterility Service, Broca Hospital, University of Paris, Paris; and J. Garcia-Calderon, M.D., Radiologist, University of Paris School of Medicine, Paris; with a chapter on Radiography of the Breast, by Charles M. Gros, M.D., and Robert Sigrist, M.D. Foreword by I. C. Rubin, M.D. Translated by Hans Lehfeldt, M.D. A Hoeber-Harper Book (Paul B. Hoeber, Inc., Med. Book Dept. of Harper & Brothers), 49 East Thirty-Third Street, New York 16, N. Y., 1959. 188 pages, $8.00.

LOGAN CLENDENING LECTURES ON THE HISTORY AND PHILOSOPHY OF MEDICINE, Eighth Series; DISEASE AND DESTINY, and LOGAN CLENDENING—Ralph H. Major, M.D., University of Kansas Press, Lawrence, Kansas, 1959. 49 pages, $2.00.

LONG-TERM ILLNESS—Management of the Chronically Ill Patient—Edited by Michael G. Wohl, M.D., F.A.C.P., former Clinical Professor of Medicine (Endocrinology), Philadelphia General Hospital and Temple University School of Medicine; Chief of Nutrition Clinic, Philadelphia General Hospital; Consulting Physician in Medicine, Albert Einstein Medical Center; Attending Physician, Home for the Jewish Aged. With the Collaboration of: Seventy-Nine Contributing Authorities. W. B. Saunders Company, Philadelphia, 1959. 748 pages, $17.00.

MANAGEMENT OF FRACTURES AND DISLOCATIONS, THE—An Atlas—Volume I and Volume II—Anthony F. DePalma, M.D., Professor of Orthopedic Surgery, Jefferson Medical College. W. B. Saunders Company, Philadelphia, 1959. Vol. I, pp. 1 through 470; Vol. II, pp. 471 through 960, $35.00 set of two volumes.

MANUAL OF DIFFERENTIAL DIAGNOSIS—William C. Matousek, M.D., Chief, Medical Service, Veterans Administration Hospital, Miles City, Montana. The Year Book Publishers, Inc., 200 E. Illinois St., Chicago 11, 1959. 352 pages, $8.00.

MIDDLE EAR, THE—Heinrich G. Kobrak; foreword by John R. Lindsay. The University of Chicago Press, 5750 Ellis Avenue, Chicago 37, Illinois, 1959. 254 pages, $15.00.

NEO-NATAL PAEDIATRICS—Edited by W. R. F. Collis, M.D., F.R.C.P., F.R.C.P.I., D.P.H., Director of Department of Paediatrics, Rotunda Hospital, Dublin. Grune & Stratton, 381 Fourth Avenue, New York 16, N. Y., 1959. 301 pages, $5.00.

NEW AND NONOFFICIAL DRUGS—1959—Issued under the Direction and Supervision of the Council on Drugs of the American Medical Association. J. B. Lippincott Company, Philadelphia, 1959. 687 pages, $3.35.

PHYSICAL DIAGNOSIS—The History and Examination of the Patient—John A. Prior, M.D., Professor of Medicine, Ohio State University College of Medicine, Columbus, Ohio; and Jack S. Silberstein, M.D., Clinical Associate Professor of Medicine, Ohio State University College of Medicine, Columbus, Ohio. The C. V. Mosby Company, St. Louis, 1959. 388 pages, with 193 illustrations, $7.50.

PRACTICAL DERMATOLOGY—Second Edition—George M. Lewis, M.D., F.A.C.P., Professor of Clinical Medicine (Dermatology), Cornell University Medical College; Attending Dermatologist, The New York Hospital. W. B. Saunders Company, Philadelphia, 1959. 363 pages, $8.00.

PREVENTIVE MEDICINE IN WORLD WAR II—Volume IV—Communicable Diseases—Prepared and Published under the direction of Major General S. B. Hays, The Surgeon General, United States Army; Editor-in-Chief Colonel John Boyd Coates, Jr., MC; Editor for Preventive Medicine Ebbe Curtis Hoff, Ph.D., M.D.; and Assistant Editor Phebe M. Hoff, M.A. Office of the Surgeon General, Department of the Army, Washington, D. C., 1958. 544 pages, $5.50.

PULMONARY CIRCULATION—An International Symposium, 1958—Sponsored by the Chicago Heart Association. Edited by Wright R. Adams, M.D., and Ilza Veith, Ph.D. Grune & Stratton, N. Y., 1959. 316 pages, $4.50.

REMINISCENCES AND ADVENTURES IN CIRCULATION RESEARCH—Carl J. Wiggers, M.D., Professor Emeritus of Physiology, Western Reserve University, School of Medicine; Honorary Professor of Physiology, Frank E. Bunts Educational Institute, Cleveland, Ohio. Grune & Stratton, New York, 1959. 404 pages, $9.75.

ROOTS OF PSYCHOANALYSIS AND PSYCHOTHERAPY, THE—A Search for Principles of General Psychotherapeutics—S. A. Szurek, M.D., Professor, Department of Psychiatry, University of California School of Medicine, San Francisco, California; Director, Children's Service, The Langley Porter Neuropsychiatric Institute. Charles C. Thomas, Publisher, Springfield, Illinois, 1959. 134 pages, $4.25.

SEDIMENTATION RATE OF HUMAN ERYTHROCYTES, THE—Frank Wright, M.D., F.A.C.P., F.A.S. Vantage Press, Inc., 120 W. 31st Street, New York 1, N. Y., 1959. 43 pages, $2.50.

VASCULAR SURGERY—Geza de Takats, M.D., M.S., F.A.C.S., Clinical Professor of Surgery, University of Illinois College of Medicine; Attending Surgeon, Presbyterian-St. Luke's Medical Center and Research and Educational Hospitals, Chicago, Illinois. W. B. Saunders Company, Philadelphia, 1959. 726 pages, $17.50.

VIRAL AND RICKETTSIAL INFECTIONS OF MAN—Third Edition—Edited by Thomas M. Rivers, M.D., Member Emeritus, The Rockefeller Institute, Vice-President-Medical Affairs, The National Foundation; and Frank L. Horsfall, Jr., M.D., Vice-President for Clinical Studies, Physician-in-Chief to the Hospital, The Rockefeller Institute. J. B. Lippincott Company, Philadelphia, 1959. 967 pages, 134 illustrations, $8.50.

YEAR BOOK OF DRUG THERAPY—(1958-1959 Year Book Series)—Edited by Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry; Consulting Physician, Milwaukee County General and Columbia Hospitals, Milwaukee, Wisconsin. The Year Book Publishers, Incorporated, 200 East Illinois Street, Chicago 11, 1959. 569 pages, $7.50.

California MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

Volume 90 MARCH 1959 Number 3

Anticoagulant Drug Treatment of Coronary Artery Disease

JOHN MARTIN ASKEY, *M.D.*, Los Angeles

• **Anticoagulant therapy of arteriosclerotic heart disease may prove to be most valuable when applied on a long-term basis for prevention of recurrent myocardial infarction. While its prophylactic value in impending infarction has not been established, at least the accepted treatment for the acute stage is already begun if an anticoagulant has been administered before an inevitable infarction occurs.**

The chief value of the anticoagulant, though, seems to lie in preventing cardiac mural thrombosis and extracardiac thromboembolism. It is by this effect, apparently, that mortality has been reduced by 50 per cent among survivors of myocardial infarction who receive continuous dicoumarin therapy.

While the danger of hemorrhage is still present, it is being steadily reduced by increasing skill in the management of anticoagulant therapy, and for a long time the risk has been far outweighed by the reduction in coronary occlusion.

Physicians have a duty to learn the use of anticoagulant therapy, obtain the facilities necessary for it, and apply it to patients who are able and willing to cooperate in prolonging their useful lives.

ARTERIOSCLEROTIC HEART DISEASE causes over 400,000 deaths annually in the United States,[27] and most of these deaths are due to thrombotic coronary artery occlusion. The ideal treatment is largely a problem of preventive medicine. Hand in hand with measures for the prevention of the primary atherosclerosis must go those for the prevention of secondary thromboembolic complications. The question of possible salvage from antithrombotic drug therapy for prevention of death in myocardial infarction is highly debatable. In 1954 the Committee on Anticoagulants of the American Heart Association concluded from a study of 1,031 cases that the death rate could be reduced by one-third.[28] There are those, however, who still reject the drugs outright; others who would use them only in acute infarction for what they consider "bad risk" cases; and there is the same committee's opinion that anticoagulants should be given prophylactically for three to four weeks in all cases unless contraindicated by a risk of severe bleeding. Still more dubious is the status of long-term anticoagulant drug therapy for preventing a recurrence of myocardial infarction in survivors of the first attack. Some physicians never use long-term therapy, others wait for a second attack or other signs of thromboembolism, and others would use it in every case in which it is not contraindicated. These different interpretations arise from clinical and pathologic statistical studies that are necessarily imperfect. The chances for error in the random selection of patients, and for error and bias in observation, are too great for a perfectly controlled study. The only statistically

Presented as part of a Symposium on Treatment of Intravascular Clotting at the American Heart Association meeting at San Francisco, October 24 to 26, 1958.

Submitted January 16, 1959.

California MEDICINE

For information on preparation of manuscript, see advertising page 2

EDITORIAL

Twenty Years After

TWENTY YEARS AGO last month a group of serious and far-sighted California physicians brought California Physicians' Service into the world as the first statewide medically-sponsored medical care prepayment plan in the country.

Since that time C.P.S. has often been referred to as the "doctors' own baby." If this appellation is accurate, it is obvious today that the baby has grown to considerable stature while passing through its childhood, adolescence and teen-age periods.

Designed to provide a budget method for people of low incomes to meet their medical care costs, C.P.S. has served many additional purposes in its twenty years of existence.

Behind the whole concept—this is a bit of history which is new to many of California's more recent physicians—lay more than twenty years of study by physicians and others who were aware of the need of the common man to be able to budget his own funds so that he would be able to pay the physician and the hospital when these services were needed. The records behind C.P.S. go back to studies made as early as 1917.

Other studies, including the review of the costs of medical care under a voluntarily-financed commission headed by the late Ray Lyman Wilbur, the California medical-economic survey of 1934-1935, and the experience of several county medical societies in offering prepayment plans in other states, were added to the research material which went into California Physicians' Service.

An added impetus, probably not needed but certainly most suggestive, was the attempt of former California Governor Culbert L. Olson to have enacted a statewide compulsory health insurance plan as a part of the laws of California. Some observers claim that C.P.S. was created simply as the profession's answer to this threat; more knowledgeable and experienced physicians admit that the Olson threat served as a spur to the profession but was not the primary factor in the establishment of this new plan.

Regardless of the impact of political machinations on its origin, C.P.S. was incorporated in February, 1939, and started on an admittedly empirical course of providing complete medical and surgical services for subscribers at a low monthly rate of dues. The empirical part of the procedure was bound up in the fact that nobody had ever before tried to provide such a service; the utilization and cost of such service was based on nothing more than guesswork.

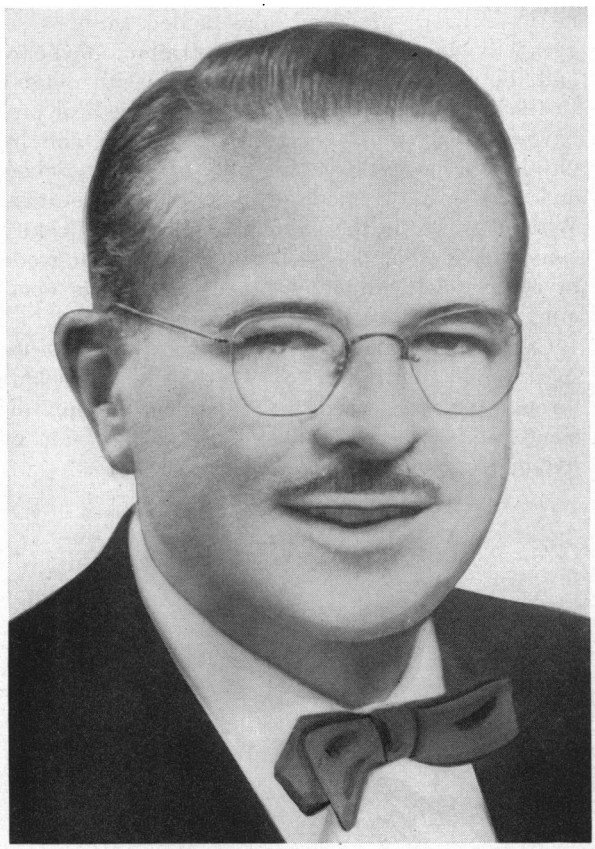
Within a short time the "bugs" in this approach began to show up. There was excessive utilization. (An extreme example: One patient visited five physicians on her day off from work.) There was an evident backlog of unmet medical needs (one family presented five children for simultaneous tonsillectomy soon after coverage was in effect). There were even excesses by some physicians who rationalized that the way to offset the low fees paid by C.P.S. on the basis of funds available to meet the units of medical service provided was to add more units to cover unneeded visits or even visits never made.

Some of these drawbacks were serious enough to cause entire county medical societies to doubt the wisdom of the program. In at least two instances, county societies threatened to "secede" from the California Medical Association.

With the advent of World War II came other problems. New citizens imported from other states were jammed into government housing projects, where their only access to medical care was through an organized program under which C.P.S. underwrote the cost of the service in exchange for a few dollars a month collected as part of the rent by the housing authorities. These programs, each organized around a single housing project, operated with varying degrees of dissatisfaction. Where the dues for housing project residents had been calculated

California MEDICAL ASSOCIATION

NOTICES & REPORTS



PAUL D. FOSTER, M.D.

Paul D. Foster, M.D., New C.M.A. President-Elect

NEW PRESIDENT-ELECT of the California Medical Association is Paul D. Foster, M.D., of Los Angeles.

Doctor Foster was elected at the C.M.A.'s 88th Annual Session held February 22 to 25 in San Francisco, succeeding T. Eric Reynolds, M.D., of Oakland. He will be installed as President at the C.M.A.'s annual meeting in 1960.

Doctor Foster has practiced medicine in California since 1935, specializing in dermatology and syphilology. He has wide experience in medical affairs on the local, state and national levels.

Vice-Speaker of the C.M.A. House of Delegates in 1955, he was, until elected to his new post, a Councilor on the state Association's Council, representing the Third District (Los Angeles County). He is a delegate to the American Medical Association and a member of the C.M.A. Committee on Postgraduate Activities, on which he serves as chairman of the Motion Picture Division. He is also a member of the Bureau of Economic Research and Planning of the C.M.A.

Doctor Foster has long been prominent in the activities of the Los Angeles County Medical Association, having served that organization with outstanding distinction as a councilor from 1945 to 1951; as secretary-treasurer for two consecutive terms, 1951 and 1952; and as president in 1953. He has been a member of the L.A.C.M.A. board of trustees since 1951.

Born at Corry, Pennsylvania, Doctor Foster received his preliminary education at Manual Arts High School and the University of California at Los Angeles.

He was graduated from the College of Medical Evangelists School of Medicine in Los Angeles in 1932. After serving his internship at Los Angeles County General Hospital, he received further training at New York Skin and Cancer Hospital and Clinic and also the New York Postgraduate Medical

Medical Schools Have Record Enrollment

American medical colleges had a record enrollment of 29,473 students in 1957-58.

Sixty of the 85 operating medical schools reported major construction, costing 47 million dollars, in the planning, beginning, or completion stages.

Forty-nine schools reported major developments and changes in administrative organization, methods of student selection, curriculum, and financing.

An estimated 275 million dollars was spent by the medical schools in 1957-58, an increase of 13 per cent over the preceding year.

These were among the many facts and figures in the 58th annual report on medical education by the American Medical Association's Council on Medical Education and Hospitals. The 90-page report appears in the November 15 issue of the *Journal of the American Medical Association.*

The report illustrates some of the changes and developments being made in medical schools to meet the changing medical needs of the American people.

It also noted the A.M.A.'s continuing support in developing additional facilities for basic medical education. "The increasing population together with various other facets of the shifting [population] pattern obviously indicate the need for constantly increasing the number of physicians," the report said. This means that existing medical schools must consider expanding their facilities, and institutions of higher education without medical education programs need to give serious consideration to the development of medical programs.

Major developments in curriculum and teaching methods were reported at several schools. These include a plan at Duke University to produce physicians who are also skilled medical research scientists; a greater emphasis on education methods for medical teachers at the University of Buffalo, and an experimental program at the University of Pittsburgh whereby medical students may adapt their medical education to one of the specific fields of research, clinical specialties, or general practice.

There are 78 approved four-year medical schools in the United States, along with four two-year schools of basic medical sciences. In addition, three newly developing schools have provisional approval by the A.M.A. council and will be graduating students within the next few years. Ten years ago there were 77 schools, including seven two-year schools of basic medical sciences. A total of 6,861 physicians was graduated from the 78 schools in 1958, as compared with 6,796 in 1957. The record year for graduates was 1955 with 6,977.

A new record was established in 1957-58 for the number of entering freshmen—8,030. The preceding year the number was 8,014 and 10 years ago the number was 6,487.

Among the other items the report showed were:

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Medical Schools Have Record Enrollment

(Continued from Page 72)

—A total of 1,644 women was enrolled in medical school, and 355 were graduated in 1958. Women's Medical College, Philadelphia, enrolls only women, while Dartmouth and Jefferson enroll only men.

—Of the 72 schools reporting that the supply of cadavers used for teaching anatomy was probably adequate for the needs of first-year students, 13 reported an insufficient supply for the more advanced students. The other 13 schools reported a "frankly inadequate supply." The report urged more states to give legal recognition to individual bequests of bodies to medical schools.

—The American Medical Education Foundation raised $984,787 from physicians for medical schools in 1957. The National Fund for Medical Education, which receives its money from industry, contributed $3,078,825 to the medical schools in January 1958.

—The median annual cost of medical school to a student, including tuition, minimum board, room, and supplies, in a private institution was $1,958. In a state-owned school, the cost was $1,395 to a resident of the state and $1,731 to a non-resident.

—The median amount of money spent by a four-year school during 1957-58 was between 2.3 and 2.4 million dollars.

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Men Are More Successful Than Women at Dieting

Men are more successful at losing weight than women, a new review of medical reports shows.

Writing in the January issue of *Archives of Internal Medicine*, published by the American Medical Association, Dr. Albert Stunkard and Mavis McLaren-Hume, M.S., said, "Sex of the patients has not, to our knowledge, been previously suggested as a possible factor in the success of efforts at weight reduction. We were, therefore, surprised to discover that whenever results of treatment have been reported according to sex of the patient, men have been shown to be more successful than women."

In three separate studies "a far higher percentage of men than women were able to achieve the modest success of a 20-pound weight loss." The discrepancy between the results of treatment for men and for women is even more pronounced if 40 pounds is considered as a criterion of success, the authors said. They offered no reason for the success of men.

At least three other possible criteria for predicting success have been suggested. They are the presence of the "night-eating syndrome," in which the patient eats at night; the outcome of previous attempts at dieting, and the amount of anxiety in the patient.

The authors found in a review of the literature and in a study of 100 patients at New York Hospital that none of these had any validity as indications of success at weight reduction.

In commenting on the treatment of obesity, the authors said, "In recent years the ill effects ascribed to excessive body weight have received wide attention, as have the benefits to be achieved by weight reduction. As a result many physicians and their patients, who had formerly looked upon weight reduction as a cosmetic conceit, have come to consider it a therapeutic imperative. A variety of lay institutions, notably the magazines for women, has seized upon this growing interest in weight reduction and has helped to magnify it to the proportions of a national neurosis."

They noted that weight reduction is a very difficult business. For success to occur, patients and physicians alike must give up the naively optimistic idea that weight reduction will occur as a matter of course once treatment is begun and realize that treatment is more than just prescribing and following a diet. When treatment for obesity is undertaken, it must be conducted by a qualified physician and not by nonmedical persons.

Dr. Stunkard is a psychiatrist at the University of Pennsylvania School of Medicine, who has extensively studied the problems of obesity treatment. Miss McLaren-Hume is a member of the staff of the department of nutrition at the New York Hospital.

Medical Schools Have Record Enrollment

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The survey of medical schools this year showed that only seven—all state-owned—limited their first-year enrollment to residents of the state in which the school was located. This is a drop of five schools from the preceding year. However, the publicly owned schools had only 4 to 9 per cent of their students from outside the state in which each school was located. As a consequence, the publicly owned schools had only one fourth to one fifth as many applicants as did privately owned schools.

Although the proportion of the total entering classes enrolled in each kind of school was about equal, the number of students lost to medicine by poor scholarship during the first year was significantly larger in each of the past four years in publicly owned schools. The report said the problem is that their geographic restrictions on residence limit applications by and choice of as many highly capable students on the part of publicly owned schools as are turned away by the geographically non-restrictive privately owned schools.

The report expressed the hope that state legislators and other public officials concerned with these matters will cooperate with university and medical school administrators "in bringing the policies re-

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Medical Schools Have Record Enrollment

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stricting admissions into a more realistic and socially useful focus."

Also included in the report was one by A. J. Carroll, business officer of the State University of New York, which criticizes the "inadequate financial reports" of medical schools. However, the W. K. Kellogg Foundation has made a grant to underwrite a study of medical school financing. It will "be able to prove the financial needs of medical education, and to establish new standards of management efficiency," Carroll said.

The report included extensive information about Canadian medical schools. There are 12 four-year schools, enrolling a total of 3,686 students. They graduated 828 physicians in 1958.

There were 82 United States citizens enrolled in the first medical year in Canadian schools as compared with four Canadians enrolled in the first-year classes of United States schools. The report pointed out that this favorable balance of 78 Americans in the first medical year of Canadian schools represents the "equivalent of another United States school having a class size larger than that of 28 of the United States medical schools."

Mechanical Brain Use Growing In Medical Sciences

Electronic computers have been used in industry and in warfare, but now they are moving into the biological and medical sciences.

Some of the dozens of uses they have in science were described in an article in the January 17 issue of the *Journal of the American Medical Association.*

Harry Weinrauch, M.D., and Albert W. Hetherington, Ph.D., of the U. S. Air Force's Air Research and Development Command said the mechanical brains have an almost limitless horizon for use in the medical and biological sciences. In fact, it has even been suggested that a modified residency program for training in computer techniques be set up for qualified physicians.

The National Academy of Sciences and the National Research Council, in cooperation with the Air Force and the National Institutes of Health, have appointed a group to consider the application of computers to medicine and biology. The group will analyze the types of medical and biological problems in which computers have been employed and will recommend the types of situations in which they could profitably be used.

Computers have already been used in the lengthy statistical calculations required during mass standardizations of drugs and in the correlation of vast amounts of information in particular areas of public health. They were used in the evaluation of the effectiveness of the Salk vaccine, and in the studies linking tobacco to cancer and tobacco to cardiovascular disease.

A computer has already been devised which analyzes electroencephalograms and others could be used in the analysis of similar bioelectrical phenomena, such as the electrocardiogram. Computers can be built that simulate certain systems of the body. They can be used to study the activities and the possibilities of interrelations within these systems. These, according to the authors, offer great possibilities as research tools in understanding the functioning of the body, particularly the nervous system. Specialized computers can be designed for specific tasks. For instance, one computer has been built which is incorporated in mechanical breathing devices. The calculator measures the voluntary breathing activity of the patient and correspondingly cuts down the action of the mechanical device.

Another category of computer application stems from its ability to store and recall quickly vast quantities of information. The authors suggested that computers be used to store the tremendous amount of data recorded on hospital charts and in medical journals. The "sheer mass of this material is so staggering that it defies efforts at retrieval. At present, the problem of building a machine big enough to store such material has not been solved, but it will be in the future, the authors think.